

LISTING OF THE CLAIMS

Please amend the Claims as shown below:

1. A method for applying multi-resolution boundary encoding to region based still image and video encoding, comprising:
 - dividing an original image into a plurality of regions, wherein a plurality of boundaries associated with the plurality of the regions is detected;
 - encoding each of the plurality of the boundaries, whereby each of the plurality of the boundaries contains different resolution coefficients;
 - decomposing each of the plurality of the regions in the original image into one or more subbands using ~~the a~~ a plurality of the boundaries with the highest resolution coefficients selected from among the plurality of boundaries that are detected;
 - successively decomposing each of the plurality of the regions in a subband with lower resolution coefficients into one or more subbands using the plurality of the boundaries with lower resolution coefficients;
 - transmitting boundary information associated with regions of the original image and image information with the lowest resolution coefficients; and
 - successively transmitting boundary information associated with regions of the original image and image information with higher resolution coefficients.

11. An apparatus for applying multi-resolution boundary encoding to region based still image and video encoding, comprising:

means for dividing an original image into a plurality of regions, wherein a plurality of boundaries associated with the plurality of the regions is detected;

10006278-1

Examiner: Lee, Y.

2

Serial No.: 09/879,168

Group Art Unit: 2613

means for encoding each of the plurality of the boundaries, whereby each of the plurality of the boundaries contains different resolution coefficients;

means for decomposing each of the plurality of the regions in the original image into one or more subbands using ~~the~~ a plurality of the boundaries with the highest resolution coefficients selected from among the plurality of boundaries that are detected;

means for successively decomposing each of the plurality of the regions in a subband with lower resolution coefficients into one or more subbands using the plurality of the boundaries with lower resolution coefficients;

means for transmitting boundary information associated with regions of the original image and image information with the lowest resolution coefficients; and

means for successively transmitting boundary information associated with regions of the original image and image information with higher resolution coefficients.

14. A computer readable medium providing instructions for applying multi-resolution boundary encoding, to region based still image and video encoding, the instructions comprising:

dividing an original image into a plurality of regions, wherein a plurality of boundaries associated with the plurality of the regions is detected;

encoding each of the plurality of the boundaries, whereby each of the plurality of the boundaries contains different resolution coefficients;

decomposing each of the plurality of the regions in the original image into one or more subbands using ~~the~~ a plurality of the boundaries with the highest resolution coefficients selected from among the plurality of boundaries that are detected;

successively decomposing each of the plurality of the regions in a subband with lower resolution coefficients into one or more subbands using the plurality of the boundaries with lower resolution coefficients;

transmitting boundary information associated with regions of the original image and image information with the lowest resolution coefficients; and

successively transmitting boundary information associated with regions of the original image and image information with higher resolution coefficients.